Amendments To The Claims

Please cancel Claims 1-3, 5 and 13 without prejudice. The following list of the claims replaces all prior versions and lists of the claims in this application.

1. (Canceled).

2. (Canceled).

3. (Canceled).

4. (Currently amended) ~~The signal of claim 2~~ An apparatus comprising a node for transmitting a wireless signal, the signal having:

a plurality of frames for transferring data from the node; and

a frame structure coupled to at least one frame of the plurality of frames, the frame structure comprising:

an automatic repeat request (ARQ) block having a first bit length;

a forward error control (FEC) block for transmitting error control information, the FEC block having a second bit length;

a physical layer frame having a third bit length; and

an interleaver block having a fourth bit length wherein the first, second, and fourth bit lengths are each different bit lengths;

wherein the physical layer frame includes multiple FEC blocks and each FEC block includes multiple ARQ blocks; and

wherein no ARQ block includes any tail bits, and the physical layer frame includes multiple tail bits.

5. (Canceled).

6. (Currently amended) The ~~frame structure~~ apparatus of claim ~~5~~ 7 wherein the overhead bits include both cyclic redundancy code (CRC) bits and tail bits.

7. (Currently amended) ~~The frame structure of claim 5 supporting~~ An apparatus comprising a node of a spread spectrum wireless network which transmits wireless signals that include a frame structure having one or more forward error control (FEC) blocks for transmitting error control information, each FEC block being subdivided into one or more automatic repeat request (ARQ) blocks, wherein each ARQ block includes a plurality of information bits and a plurality of overhead bits, wherein the frame structure supports multiple wireless environments in the spread spectrum wireless network, and wherein the number of ARQ blocks is responsive to the environment for producing a relatively high throughput.

8. (Currently amended) ~~The frame structure of claim 5 supporting~~ An apparatus comprising a node of a spread spectrum wireless network which transmits wireless signals that include a frame structure having one or more forward error control (FEC) blocks for transmitting error control information, each FEC block being subdivided into one or more automatic repeat request (ARQ) blocks, wherein each ARQ block includes a plurality of information bits and a

plurality of overhead bits, wherein the frame structure supports multiple information types in the spread spectrum wireless network, and wherein the number of ARQ blocks is responsive to whether the information is voice or data.

9. (Currently amended) ~~The frame structure of claim 5 supporting~~ An apparatus comprising a node of a spread spectrum wireless network which transmits wireless signals that include a frame structure having one or more forward error control (FEC) blocks for transmitting error control information, each FEC block being subdivided into one or more automatic repeat request (ARQ) blocks, wherein each ARQ block includes a plurality of information bits and a plurality of overhead bits, wherein the frame structure supports a Convolutional FEC code, and wherein the overhead bits of the ARQ blocks effectively block the Convolutional FEC code.

10. (Currently amended) ~~The frame structure of claim 5~~ An apparatus comprising a node of a spread spectrum wireless network which transmits wireless signals that include a frame structure having one or more forward error control (FEC) blocks for transmitting error control information, each FEC block being subdivided into one or more automatic repeat request (ARQ) blocks, wherein each ARQ block includes a plurality of information bits and a plurality of overhead bits, wherein the number of FEC blocks and ARQ blocks are modifiable to balance requirements for data transmission and voice transmission.

11. (Currently amended) ~~The frame structure of claim 5~~ An apparatus comprising a node of a spread spectrum wireless network which transmits wireless signals that include a frame structure having one or more forward error control (FEC) blocks for transmitting error control information, each FEC block being subdivided into one or more automatic repeat request (ARQ) blocks, wherein each ARQ block includes a plurality of information bits and a plurality of

overhead bits, wherein the number of FEC blocks and ARQ blocks are modifiable to promote efficient operation depending on a wireless environment and mobile station complexity.

12. (Currently amended) ~~The frame structure of claim 5~~ An apparatus comprising a node of a spread spectrum wireless network which transmits wireless signals that include a frame structure having one or more forward error control (FEC) blocks for transmitting error control information, each FEC block being subdivided into one or more automatic repeat request (ARQ) blocks, wherein each ARQ block includes a plurality of information bits and a plurality of overhead bits, wherein the number of FEC blocks and ARQ blocks, and the number of information bits in the ARQ blocks, are modifiable to accommodate different transmission rates.

13. (Canceled).

14. (Currently amended) The processing system of claim ~~13~~ 19 wherein the overhead bits include both cyclic redundancy code (CRC) bits and tail bits.

15. (Currently amended) ~~The processing system of claim 13~~ A processing system for communicating in a personal communications service wireless network, the processing system comprising:

an interface for receiving information bits from a mobile station;

an interface for delivering the information bits to a second network; and

means for arranging the information bits into a frame structure comprising one or more forward error control (FEC) blocks for transmitting error control information;

wherein each FEC block is further subdivided into one or more automatic repeat request (ARQ) blocks so that each ARQ block includes information bits and overhead bits; and

wherein the overhead bits include cyclic redundancy code (CRC) bits but no tail bits, and wherein one or more tail bits are appended to the frame structure.

16. (Currently amended) ~~The processing system of claim 13~~ A processing system for communicating in a personal communications service wireless network, the processing system comprising:

an interface for receiving information bits from a mobile station;

an interface for delivering the information bits to a second network; and

means for arranging the information bits into a frame structure comprising one or more forward error control (FEC) blocks for transmitting error control information;

wherein each FEC block is further subdivided into one or more automatic repeat request (ARQ) blocks so that each ARQ block includes information bits and overhead bits; and

wherein the arranging means supports multiple wireless environments in the spread spectrum wireless network so that the number of ARQ blocks is responsive to the environment for producing a relatively high throughput.

17. (Currently amended) ~~The processing system of claim 13~~ A processing system for communicating in a personal communications service wireless network, the processing system comprising:

an interface for receiving information bits from a mobile station;

an interface for delivering the information bits to a second network; and

means for arranging the information bits into a frame structure comprising one or more forward error control (FEC) blocks for transmitting error control information;

wherein each FEC block is further subdivided into one or more automatic repeat request (ARQ) blocks so that each ARQ block includes information bits and overhead bits; and

wherein the arranging means supports multiple communication types in the spread spectrum wireless network, and wherein the number of ARQ blocks is responsive to whether the communication type is voice or data.

18. (Currently amended) ~~The processing system of claim 13~~ A processing system for communicating in a personal communications service wireless network, the processing system comprising:

an interface for receiving information bits from a mobile station;

an interface for delivering the information bits to a second network; and

means for arranging the information bits into a frame structure comprising one or more forward error control (FEC) blocks for transmitting error control information;

wherein each FEC block is further subdivided into one or more automatic repeat request (ARQ) blocks so that each ARQ block includes information bits and overhead bits; and

wherein the arranging means supports a Convolutional FEC code, and wherein the overhead bits of the ARQ blocks effectively blocks the Convolutional FEC code.

19. (Currently amended) ~~The processing system of claim 13~~ A processing system for communicating in a personal communications service wireless network, the processing system comprising:

an interface for receiving information bits from a mobile station;

an interface for delivering the information bits to a second network; and

means for arranging the information bits into a frame structure comprising one or more forward error control (FEC) blocks for transmitting error control information;

wherein each FEC block is further subdivided into one or more automatic repeat request (ARQ) blocks so that each ARQ block includes information bits and overhead bits; and

wherein the arranging means modifies the number of FEC blocks and ARQ blocks to balance requirements for data transmission and voice transmission.

20. (Currently amended) ~~The processing system of claim 13~~ A processing system for communicating in a personal communications service wireless network, the processing system comprising:

an interface for receiving information bits from a mobile station;

an interface for delivering the information bits to a second network; and

means for arranging the information bits into a frame structure comprising one or more forward error control (FEC) blocks for transmitting error control information;

wherein each FEC block is further subdivided into one or more automatic repeat request (ARQ) blocks so that each ARQ block includes information bits and overhead bits; and

wherein the arranging means modifies the number of FEC blocks and ARQ blocks to promote efficient operation depending on a wireless environment and mobile station complexity.

21. (Currently amended) ~~The processing system of claim 13~~ A processing system for communicating in a personal communications service wireless network, the processing system comprising:

an interface for receiving information bits from a mobile station;

an interface for delivering the information bits to a second network; and

means for arranging the information bits into a frame structure comprising one or more forward error control (FEC) blocks for transmitting error control information;

wherein each FEC block is further subdivided into one or more automatic repeat request (ARQ) blocks so that each ARQ block includes information bits and overhead bits; and

wherein the arranging means modifies the number of FEC blocks, the number of ARQ blocks, and the number of information bits in the ARQ blocks, to accommodate different transmission rates.